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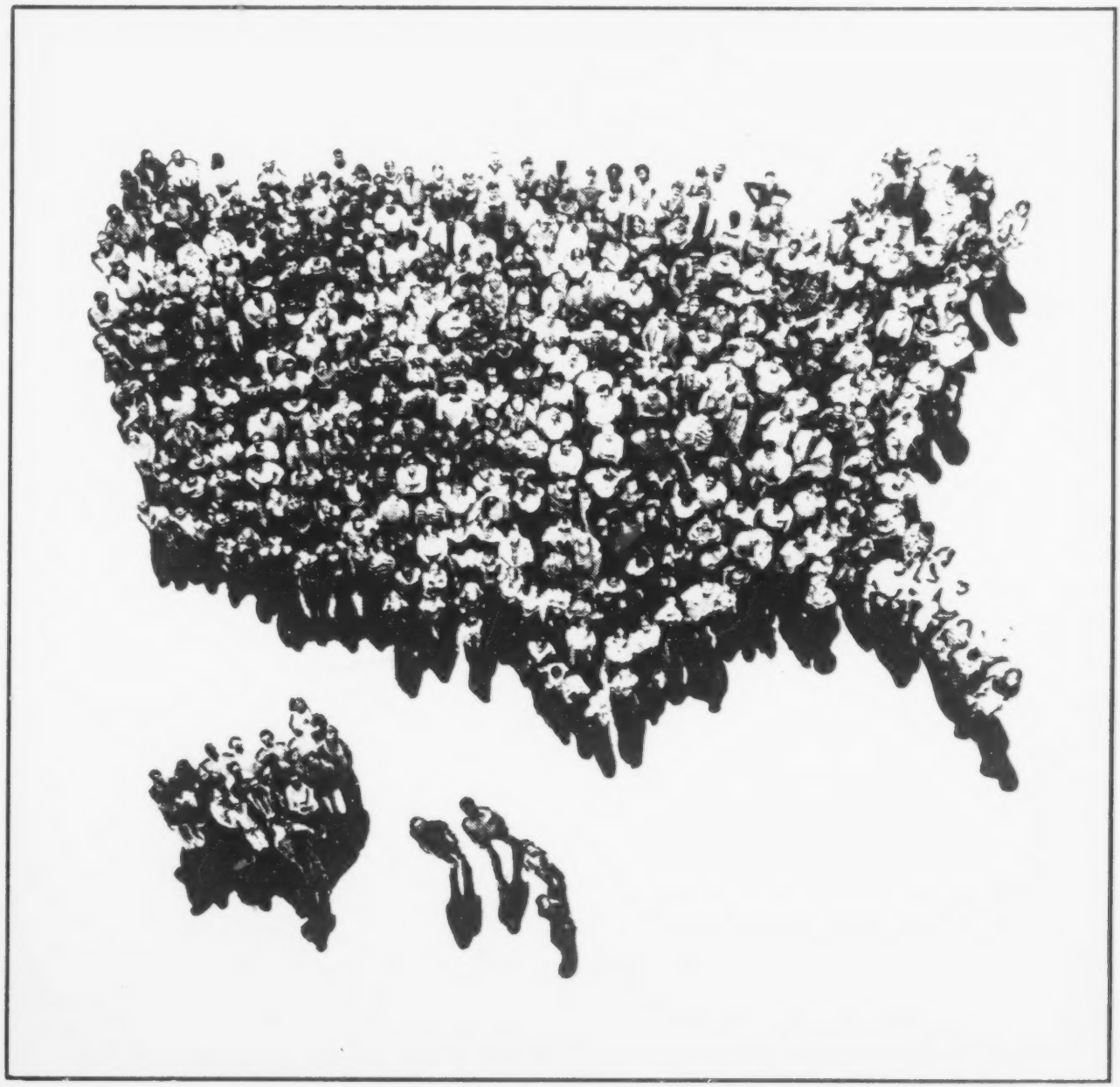

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Resident Population of the United States, By Age and Sex
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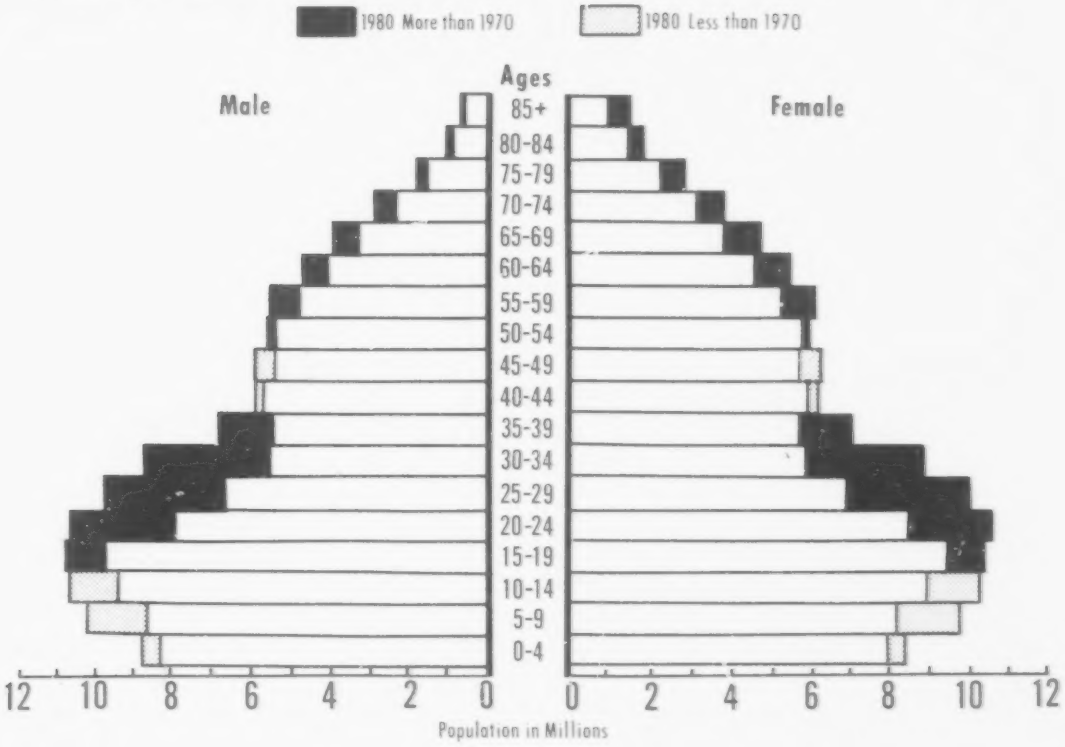

Changes in the Age Profile of the Population

The resident population of the United States reached 226,504,825 on April 1, 1980, increasing by 11.4 percent from the 203,235,298* count of a decade earlier. This rapid rise has significantly altered the age profile of the population. The changes in the age distribution of males and females in the United States population are presented in the chart on the opposite page, which illustrates the results of the 1970 and 1980 censuses.

The age profile shows contrasting growth patterns for children, young adults, and the elderly. The number of children under 15 years of age declined by 11.5 percent between 1970 and 1980. However, there were substantial differences in the relative declines within the age group. For instance, there were 4.8 percent fewer children under 5 years of age, while the number at ages 5-9 dropped by 16.4 percent, and at ages 10-14 by 12.3 percent. On the other hand, there were substantial increases among young adults, with increments of 30.1 percent at ages 20-24, 44.7 percent at ages 25-29, and 53.5 percent at ages 30-34. In fact, of the 23.2 million increase in population for the nation as a whole, 12.2 million were recorded at ages 25-34. These diverse patterns reflect the sharp contrast between the high fertility levels of the baby-boom years and the precipitous decline in birth rates that followed. The number of residents in the United States now aged 40-49 (born in the low-birth-rate years of the depression) decreased between 1970 and 1980.

The population aged 55 and over rose rapidly during the decade, with a greater relative gain for females than for males. For example, the number of persons aged 65 and over increased by more than five and a half million, or by 27.9 percent, reaching a total of 25,544,000 in April 1980. During the 10-year interval, the number of females rose by 31.3 percent to15,241,000 while the male population increased by 23.1 percent to 10,303,000.

In 1980 there were 110.0 million males and 116.5 million females in the total resident population. Between 1970 and 1980 the number of males increased by 11.2 percent while the number of females rose by 11.7 percent. As a result, the ratio of males to females declined slightly; there were 94.5 males for every 100 females in 1980 compared with 94.8 men per 100 women in 1970. An examination of the age distribution of the population in 1980 shows that there were more men than women under age 20, at ages 20-24 their numbers were approximately equal; thereafter, women outnumbered men in every age group. Moreover, the population disparity between the sexes widened sharply with advancing age because of the more favorable mortality experience among females. At ages 65 and over, there were three women for every two men and at ages 85 and over the sex differential in favor of women was more than two to one.

During the 1970s the nonwhite population expanded at a dramatic rate. In 1980 the number of nonwhites totaled 38,164,000—an increase of 51.8 percent over the nonwhite population in 1970. However, the total number of nonwhites in 1980 is not strictly comparable with the number in 1970 because of the significant changes in the way persons answered the census questionnaires

*The revised official United States total is 203,302,031, but details by age are not available.

with regard to race and in the procedure used by the Bureau of the Census to process the responses.

Although the birth rate for both whites and nonwhites has been declining since the mid-1950s, the birth rate among nonwhites is still significantly higher than that among whites; this has resulted in a younger age distribution for the nonwhite population. In 1980 more than 40 percent of the nonwhites were under 20 years of age, compared with 30.3 percent of the whites. Approximately 6.8 percent of the nonwhites were 65 years of age or older, while 12.2 percent of the whites were in this age group. In 1980 the median age for nonwhites was 24.6 years compared with a median age of 31.3 years for whites.

The fluctuations in birth rates in the past will continue to influence the age composition of the population. It is anticipated that the 1990 Census will record a large population increase in the 35-44 age group and a decline in the number of adults in their 50s. Moreover, if fertility continues at the current low levels, the proportion of older people in the population is expected to rise rapidly in the near future. These diverse patterns in the age distribution of the United States population imply significant social and economic changes in the future.

Railroad Accident Fatalities

During the 10-year period 1969-78, there were approximately 19,000 fatalities in accidents on United States railroads.* About two thirds of these deaths were caused by rail-highway grade-crossing accidents.

More detailed information on fatalities in railroad accidents is presented in Table 1. As shown in the upper tier of the table, by far the greatest number of fatalities occurred among nontrespassers (persons, other than employees or passengers, who are lawfully on railroad property or who are adjacent to railroad premises when injured as the result of railroad operation). There were 12,091 deaths among nontrespassers in the 10-year period under review. However, the number of fatalities declined from 6,910 in 1969-73 to 5,181 in 1974-78, or by 25 percent.

The second largest number of deaths were recorded among trespassers. (Trespassers are persons whose presence on railroad property is prohibited or unlawful. A person entering a rail-highway grade crossing is classified as a trespasser if the crossing is protected by gates, or other barriers, which are closed.) There was a 15-percent reduction in the number of fatalities among trespassers, with 2,959 deaths in 1969-73 and 2,502 in 1974-78.

Among passengers there were 128 deaths from railroad accidents in 1969-78. Fatalities decreased by more than half during the 10 years, dropping from 90 deaths in the first five years of the period to 38 deaths in the second five years. One accident in 1972 accounted for half of all passenger deaths in 1969-73; a commuter train

*Excluding rapid transit railroads

TABLE 1—RAILROAD ACCIDENT FATALITIES*

United States, 1969-78

Persons Involved and Type of Accident	Number of Deaths		
	1969-73	1974-78	1969-78
All Railroad Accidents			
Employee on duty	826	602	1,428
Employee not on duty	44	33	77
Passenger	90	38	128
Nontrespasser	6,910	5,181	12,091
Trespasser	2,959	2,502	5,461
Total	10,829	8,356	19,185
Rail-Highway Grade-Crossing Accidents			
Pedestrian	354	325	679
Motor vehicle	6,537	4,721	11,258
Other or unknown	151	325	476
Total	7,042	5,371	12,413

*Rapid transit railroad fatalities are excluded.

Note: Fatality rates were not computed because of a lack of sufficient data on the numbers exposed to risk for certain categories.

Source of basic data: Reports of Federal Railroad Administration.

was struck from behind and 44 passengers in the last car, as well as the engineer of the colliding train, were killed.

There were 1,505 fatalities among employees of the railroads in 1969-78, with 1,428 deaths among employees who were on duty at the time of the accident and 77 deaths among those who were not on duty. The number of deaths for each group decreased between 1969-73 and 1974-78.

Rail-highway grade-crossing accidents were responsible for 12,413 fatalities during the 10-year period. As shown in Table 1, 11,258 of these deaths occurred in accidents involving motor vehicles, while 679 deaths were among pedestrians. A review of the experience for 1978 indicates that 623 automobiles, 254 trucks, 31 truck trailers, and 21 motorcycles were involved in fatal grade-crossing accidents in that year. This pattern was typical of the earlier years. Between 1969-73 and 1974-78 the number of fatalities among the occupants of motor vehicles in grade-crossing accidents decreased from 6,537 to 4,721, or by nearly 28 percent. Among pedestrians, a decline of about 8 percent was recorded.

Between 1969 and 1978, the number of employees of United States railroads declined from 865,000 to 660,000, or by 24 percent. During this time, the number of deaths from railroad accidents among employees on duty has ranged from a high of 198 in 1969 to a low of 100 in 1976. Fatality rates among these employees have varied annually between 16 and 25 deaths per 100,000 employees.

Table 2 on page 6 shows the fatality rates in the seven railroad occupation groups (as defined by the Interstate Commerce Commission) for 1969-78, as well as for both five-year periods. Deaths among employees not on duty are excluded from the table; such deaths, which represent about 5.1 percent of all employee deaths, are not tabulated according to occupation.

The fatality rate of 22.3 per 100,000 among railroad employees on duty in the 1969-73 period

TABLE 2 – FATALITY RATES AMONG RAILROAD EMPLOYEES ON DUTY*

United States, 1969-78

Occupation Group	Average Annual Fatality Rate per 100,000 Employees		
	1969-73	1974-78	1969-78
Executive, official, and staff assistant	11.4	13.6	12.5
Professional, clerical, and general	1.3	4.0	2.5
Maintenance of way and structure	27.5	24.2	25.9
Maintenance of equipment and stores	14.5	12.1	13.3
Transportation other than train, engine, and yard	5.5	5.0	5.3
Transportation – yardmaster, switch tender, and hostler	6.7†	5.4†	6.0
Transportation – train and engine	47.7	33.1	40.7
All	22.3	18.2	20.3

*Based on fatal injuries only.

†Based on five or fewer deaths.

Source: Bureau of Labor Statistics, Chicago Regional Office, Railroad Retirement Board, and Federal Railroad Administration.

of the study decreased to 18.2 per 100,000 in 1974-78, or by about 18 percent. The greatest improvement was recorded in the train and engine transportation group, with a 30-percent reduction in death rates, from 47.7 to 33.1 per 100,000. However, these fatality rates were considerably higher than the rates for the other occupation groups. The increase in the fatality rate among the executives listed in Table 2 is noteworthy because this group as a rule is not usually subjected to a great degree of hazard. It must be remembered, however, that there are some small railroads where the chief executive officer or owner takes a very active hand in the actual running of the railroad. In the 10-year period there were 26 deaths in this group.

Table 3 presents fatality rates for a sample selection of 21 specific occupations, chosen largely for their high fatality rates. For most of the occupations there was an improvement in the fatality experience between 1969-73 and 1974-78. The most dramatic improvement occurred among road freight engineers and motormen (local and way freight) where the rate dropped from 45.1 to 8.3 per 100,000 employees; there were 17 fatalities in the earlier five-year period and only 3 in the later period. The highest fatality rates for the 10-year period were found among road freight conductors (72.6 per 100,000) and road freight brakemen and flagmen (73.2 per 100,000) in local and way freight transportation. These rates were considerably higher than the rates in all other occupations cited.

Accident statistics for rapid transit railroads have become available only recently. From 1975 to 1978 about 10 companies, which represent nearly all of the rapid transit facilities in the United States, have sent accident reports to the Federal Railroad Administration. The number of deaths each year has ranged from 49 to 80, with a total of 255 for the four-year period. Twelve of these deaths were among employees, 41 among passengers, and 45 among nontrespassers; the other 157 deaths occurred among trespassers.

Not all passenger fatalities occurred in actual railroad accidents. Of the five passenger fatalities in 1978, all occurred on the New York City subway system, one of the largest in the world which carries over one billion passengers, or about 71 percent of the United States rapid transit traffic each year. Four passengers died from stumbling, slipping, or falling and one died from assault.

TABLE 3—FATALITY RATES FOR SELECTED OCCUPATIONS AMONG RAILROAD EMPLOYEES ON DUTY*

United States, 1969-78

Occupation	Average Annual Fatality Rate per 100,000 Employees		
	1969-73	1974-78	1969-78
Executive, general officer, division officer, assistant, and staff assistant	11.5	13.6	12.5
Lieutenant and sergeant of police, patrolman, and watchman	18.7†	33.9	26.1
Bridge and building gang foreman (skilled labor), carpenter, ironworker, and painter	45.7	29.3	37.8
Portable equipment operator	16.3	24.9	19.0
Gang or section foreman	56.8	30.5	43.3
Extra gang man	18.1	17.0	17.6
Section man	24.3	23.5	23.9
Signalman and signal maintainer	30.9	40.0	35.5
Lineman and groundman	51.2	24.2†	38.4
Passenger car man	54.3	38.0	45.9
Freight car man	15.8	13.0	14.5
Road freight conductor (through freight)	29.8	28.4	29.1
Road freight conductor (local and way freight)	79.9	65.2	72.6
Road freight brakeman and flagman (through freight)	48.8	37.8	43.2
Road freight brakeman and flagman (local and way freight)	92.2	53.4	73.2
Yard conductor and yard foreman	42.8	28.3	35.8
Yard brakeman and yard helper	44.1	39.5	42.1
Road passenger engineer and motorman	15.9†	33.5†	24.5
Road freight engineer and motorman (through freight)	71.5	31.2	50.0
Road freight engineer and motorman (local and way freight)	45.1	8.3†	27.0
Fireman and helper	27.3†	16.3†	23.3

*Rapid transit railroad fatalities are excluded.

†Based on five or fewer deaths.

Source of basic data: Reports of United States Railroad Retirement Board, and Federal Railroad Administration.

Variation in Duration of Disability Among Metropolitan Employees

Disability among the employed is generally of short duration. A recent study of disability lasting longer than a week among Metropolitan employees indicates that nearly a fifth of the disabled returned to work within 15 days after onset of illness and about half recovered within five weeks. Only about one in 25 remained disabled for longer than six months. Additional details of the study, which covered the three-year period 1977-79, are shown in the table on page 9.

Recovery was generally slower among sales employees (District Office and Field personnel) than among office employees. For every time period shown in the table, a smaller proportion of sales personnel than office personnel recovered from disability. After one week of disability benefits (two weeks after onset of illness) nearly a third of male office employees but only about a ninth of male sales employees had returned to work. The difference between the two groups was about 24 percentage points after four weeks of benefits, but narrowed to 12 percentage points after three months. At the end of six months, the differential was only five percentage points, which diminished to two percentage points after 24 months. 98 percent of the male office employees and 96 percent of the male sales employees had recovered by the end of the second year of disability.

The same advantage was enjoyed by women office personnel but to a lesser degree. After the first week of benefits, 26 percent of the disabled women in the Home and Head Offices had returned to work, compared with 16 percent of the disabled women in the Field. The differential remained at ten percentage points until three months had elapsed, when it decreased to seven percentage points. After six months, 98 percent of female office employees and 97 percent of female sales employees had recovered.

Older employees generally took a longer time to recover from disability than did younger employees. Among office employees, for example, 95 percent of the men and women under age 25, but only 81 percent of the men and 88 percent of the women aged 45-64 had returned to work after three months of benefits. Among sales employees, 91 percent of the men under age 25, but only 69 percent of those aged 45-64, had recovered from disability by the end of the three-month period. Among women sales employees, 94 percent of those under age 25 had returned to work within this period, but only 80 percent of the women aged 45-64 had done so.

Employees recovered from some types of disability much more rapidly than from others. Diseases of the respiratory system, mostly acute conditions of the upper respiratory tract, were notable for their short duration. Disorders of the circulatory system, however, disabled employees for longer periods than any other major cause of disability shown in the table. Among office employees nearly two thirds of the men and more than half of the women disabled by respiratory conditions were back at work within one week of the inception of disability benefits; by the end of the fourth week about nine out of ten had recovered. Among sales personnel, more than a quarter of the men and nearly two fifths of the women disabled by respiratory conditions had recovered by the end of the first week of benefits; after four weeks only three tenths of the men and a fifth of the women were still disabled. On the other hand, less than a fifth of the office personnel disabled by circulatory disorders recovered within one week of the receipt of benefits; about half were still disabled after four weeks. Among sales personnel these proportions were smaller still. The pattern of disability for maternity differed markedly from all other causes of disability; more than half of all such cases of disability lasted between four and seven weeks.

The vast majority of the disabled eventually recovered; a small proportion, however, died while on disability. In this study somewhat more than 1 percent of all disabilities ended in death. Details of the deaths by sex, age, and disability status are presented in the chart on the back cover. It was not feasible to show the experience separately by type of employment because of the paucity of

VARIATION IN DURATION OF DISABILITY AND AVERAGE DURATION PER CLAIM

Personnel of the Metropolitan Life Insurance Company, 1977-79*

Sex, Age, and Cause of Disability	Cumulative Percentage of Claims Terminating Within Indicated Duration Following Admission to Benefits										Average Duration of Disability per Claim† (In Weeks)	
	Weeks		Months			Weeks		Months				
	1	4	3	6	24	1	4	3	6	24		
	Office Personnel					Sales Personnel‡					Office Personnel	Sales Personnel‡
Males at Ages												
17-64	32.5	63.4	87.2	96.4	98.0	10.6	39.7	75.2	91.4	96.0	5.4	9.1
17-24	37.3	74.1	94.9	100.0	100.0	19.5	60.2	90.8	100.0	100.0	3.7	5.3
25-44	35.9	68.0	91.5	98.2	99.0	12.0	46.1	81.6	96.4	98.5	4.4	7.7
45-64	28.2	56.3	81.2	93.7	95.5	8.4	32.6	68.7	86.8	93.8	6.9	10.6
Females at Ages												
17-64	25.6	55.9	91.6	98.1	99.0	15.9	46.1	85.1	97.1	98.9	5.2	7.0
17-24	29.1	60.0	95.2	99.9	100.0	23.0	58.4	94.2	100.0	100.0	4.4	4.7
25-44	21.8	50.3	92.9	98.8	99.6	13.8	44.0	85.8	98.3	99.3	5.4	6.9
45-64	28.3	60.6	87.9	96.1	97.7	16.0	43.8	79.8	93.8	97.7	5.6	8.3
Males at Ages 17-64												
Diseases of respiratory system	65.8	89.6	97.1	99.2	99.2	26.5	70.1	89.1	95.5	97.9	2.0	4.9
Diseases of digestive system	26.2	61.2	93.9	99.1	99.1	10.1	39.9	85.9	96.9	98.7	4.5	7.2
Diseases of circulatory system	19.9	45.7	68.9	86.1	94.0	4.1	20.4	53.4	78.9	90.6	10.0	14.2
Diseases of heart	14.1	34.1	55.3	82.4	92.9	3.6	15.3	41.8	72.6	87.5	13.2	16.6
Diseases of bones	24.5	57.7	82.8	95.7	97.6	7.0	32.5	68.7	89.0	94.1	6.4	10.6
Accidental injuries	27.9	61.8	89.3	98.2	98.6	9.9	46.2	81.9	96.8	98.5	5.1	7.6
Females at Ages 17-64												
Diseases of respiratory system	54.7	91.2	98.1	99.3	99.7	38.9	81.4	94.3	98.9	100.0	1.9	3.3
Diseases of digestive system	31.1	59.5	92.1	98.7	99.4	16.2	49.2	91.2	97.7	99.6	4.8	5.8
Diseases of circulatory system	19.5	51.2	83.3	93.6	96.4	9.1	29.9	62.3	89.0	98.1	6.9	11.8
Diseases of heart	18.2	41.8	71.8	86.4	93.6	6.9	24.1	50.0	81.0	94.8	9.6	15.2
Diseases of genitourinary system	25.8	56.3	93.2	99.0	99.2	15.2	37.6	89.3	99.3	99.3	4.9	6.5
Maternity and related conditions	4.0	21.9	97.0	99.8	100.0	3.0	23.6	93.9	99.4	100.0	6.5	7.0
Diseases of bones	23.1	56.1	83.6	95.1	97.5	12.0	44.6	77.7	94.9	97.9	6.8	8.4
Accidental injuries	20.8	54.8	87.7	98.1	99.0	13.1	45.0	82.6	98.7	99.7	5.9	7.8

*Personnel in the Pacific Coast States and Canada are not included.

†Based on first 26 weeks of benefits.

‡Employees in the District Offices and Field (including clerical).

Note: Temporary disability benefits are payable after the first week of absence for a maximum of 26 weeks. If still disabled, employees receive further benefits under another part of the program. The first week of absence and disability days beyond two years are not included in the above figures.

data. Employees on disability prior to death experienced much higher death rates than did those who were active or disabled for less than a week before death. The differentials were greater at the older than at the younger ages and considerably greater among women than among men. During the period of the study, disabled men at ages 45-64 recorded an annual death rate of 12.9 per 1,000, about five times the 2.7 per 1,000 rate among active male employees. At ages 25-44, the death rate was 2.1 per 1,000 among the disabled men and 0.6 per 1,000 among those actively at work. Among women at ages 45-64 the annual death rate was 7.7 per 1,000 among the disabled, or thirteen times the 0.6 per 1,000 rate registered among active female employees. At ages 25-44, the death rate was 1.4 per 1,000 among disabled women and 0.2 per 1,000 among the active.

In every instance in this study, more than half of those admitted to disability benefits recovered within a shorter period than the average duration of disability. For example, among male office personnel disabled by respiratory diseases the average duration of disability was 2.0 weeks; however, 80 percent had recovered by the end of the second week of benefits. Because most disabilities among those in the work force are of short duration, the proportion recovering at various time intervals following onset of disability provides more useful information on the extent of disability than does average duration.

Fatal Accidents Among School-Age Children

Accidents are the leading cause of death among school-age children in the United States, claiming more lives than all other causes of death combined. At ages 5-14, accidents are responsible for more than half the deaths among boys and for about two fifths of all deaths among girls. Although the number of deaths from accidental injuries has declined in recent years, accidents still constitute the major threat to life among children of school age. During 1978, the latest year for which official figures are available, 6,118 children aged 5-14 died as a result of accidental injuries—a death rate of 17.2 per 100,000.

As indicated in Table 1 on page 11, the accident death rate among boys aged 5-14 dropped from 27.3 per 100,000 in 1968-69 to 23.2 in 1977-78, a decrease of 15 percent; the decrease was the same for age groups 5-9 and 10-14. During the same period, the accident death rate among girls aged 5-14 declined from 12.6 to 11.1 per 100,000, or by 12 percent. There was a 14-percent decrease in mortality among girls aged 5-9 but only a 6-percent reduction among girls aged 10-14.

Although the number of deaths from motor vehicle accidents among school-age children rose during the 1960s, there has been a marked decline in such fatalities since 1973, attributed in large part to the mandatory speed limit of 55 miles per hour. Between 1968-69 and 1977-78 the death rate from motor vehicle accidents among boys 5-14 years of age decreased from 12.6 to 11.0 per 100,000; among girls such deaths fell from 7.0 to 6.4 per 100,000. The greatest reductions were recorded at ages 5-9: 20 percent for boys and 15 percent for girls. At ages 10-14, such fatalities decreased by 7 percent among boys and 3 percent among girls.

During the period under review, the mortality experience from all other types of accidents combined continued the declining trend of the 1960s. Between 1968-69 and 1977-78, death rates from

TABLE 1—MORTALITY FROM ACCIDENTS AT AGES 5-14

United States, 1968-69 and 1977-78

Age and Sex	Accidents—Total			Motor Vehicle Accidents			All Other Accidents		
	Death Rate per 100,000		Percent Change	Death Rate per 100,000		Percent Change	Death Rate per 100,000		Percent Change
	1968-69	1977-78		1968-69	1977-78		1968-69	1977-78	
Total									
5-9	19.8	16.9	−15	10.5	8.6	−18	9.3	8.3	−11
10-14	20.3	17.7	−13	9.3	8.8	− 5	11.0	8.9	−19
5-14	20.1	17.3	−14	9.9	8.7	−12	10.2	8.6	−16
Boys									
5-9	25.4	21.5	−15	13.0	10.4	−20	12.4	11.1	−10
10-14	29.3	24.8	−15	12.3	11.5	− 7	17.0	13.3	−22
5-14	27.3	23.2	−15	12.6	11.0	−13	14.7	12.2	−17
Girls									
5-9	14.1	12.1	−14	7.9	6.7	−15	6.2	5.4	−13
10-14	11.0	10.3	− 6	6.2	6.0	− 3	4.8	4.3	−10
5-14	12.6	11.1	−12	7.0	6.4	− 9	5.6	4.7	−16

Source of basic data: Reports of the Division of Vital Statistics, National Center for Health Statistics.

such accidents fell by one tenth among boys aged 5-9 and girls aged 10-14. There was a 13-percent decrease in such fatalities among girls 5-9 years of age and a 22-percent decrease among boys 10-14 years old.

Detailed data on the mortality from the leading causes of fatal accidents among school-age children in 1977-78 are presented in Table 2. The death rates from all major types of accidents were significantly higher for boys than for girls, with the exception of the mortality from fire injuries at ages 10-14, when the rate was the same for both sexes.

Motor vehicle accidents were responsible for 47 percent of all fatalities among boys aged 5-14 and for 57 percent of the deaths among girls in 1977-78. The death rate among boys was about 1¾ times that among girls. Pedestrian fatalities accounted for one out of every two deaths in motor vehicle accidents among children aged 5-9 and for one out of every four at ages 10-14. Most of the pedestrian fatalities among children occurred while they were playing on or crossing streets. This reflects the fact that children of school age often fail to observe safety precautions, but may also indicate a lack of adult supervision.

Drowning (other than in water transportation) ranked second as a cause of accidental death among boys aged 5-14 and represented about a fifth of their accident fatalities in 1977-78. Among girls, drowning ranked third. The death rate of 1.1 per 100,000 among girls was about a quarter of the death rate among boys.

On the other hand, deaths caused by fires and flames ranked second among girls and third among boys. The death rates among boys were 2.3 per 100,000 at ages 5-9 and 1.1 per 100,000 at ages 10-14. The experience among girls followed the same pattern, with the death rate at ages 5-9 considerably higher than the rate at ages 10-14.

Firearm accidents accounted for 6 percent of all accident fatalities among boys, with three quarters of the deaths concentrated at ages 10-14. The death rate from firearm accidents among boys of this age was 2.0 per 100,000, about seven times that recorded among girls. It is evident that boys are much more likely than girls to handle and play with guns that have been left unattended.

Falls and water transport accidents were each responsible for about 2 percent of all accidental deaths among boys, with a slightly higher proportion of the deaths occurring at ages 10-14. Among girls the death rates from such accidents were relatively low.

TABLE 2—MORTALITY FROM LEADING TYPES OF ACCIDENTS AT AGES 5-14

United States, 1977-78

Type of Accident	Ages 5-9	Ages 10-14	Ages 5-14
	Average Annual Death Rate per 100,000		
Boys			
Accidents—All Types	21.5	24.8	23.2
Motor vehicle	10.4	11.5	11.0
Pedestrian	5.7	2.7	4.1
Drowning*	4.2	4.4	4.3
Fires and flames	2.3	1.1	1.7
Firearm missile	.8	2.0	1.4
Falls	.4	.6	.5
Water transport	.3	.4	.4
All other	3.1	4.8	3.9
Girls			
Accidents—All Types	12.1	10.3	11.1
Motor vehicle	6.7	6.0	6.4
Pedestrian	3.1	1.7	2.3
Drowning*	1.2	1.1	1.1
Fires and flames	1.9	1.1	1.5
Firearm missile	.3	.3	.3
Falls	.2	.1	.2
Water transport	.2	.1	.1
All other	1.6	1.6	1.5
	Percent Distribution		
Accidental deaths as a percent of all deaths			
Boys	54%	56%	55%
Girls	44	41	42
Motor vehicle accident deaths as a percent of all accidental deaths			
Boys	49	47	47
Girls	56	59	57

*Exclusive of deaths in water transportation

Source of basic data: Reports of the Division of Vital Statistics, National Center for Health Statistics

Some progress has been made in recent years in reducing the total number of accidental deaths. However, accidents remain the major killer of children of school age. In addition to the large number of fatalities, accidents can also cause permanent impairments, disabling injuries, and considerable loss of time from school. Data from the National Health Survey indicate that for the year 1978 about 15.5 million children in the age range 6-16 (38 percent of the population at these ages) suffered injuries requiring medical attention or involving at least one day of restricted activity. Time lost from school because of injuries amounted to 47.8 days per 100 boys and 36.2 days per 100 girls.

Many accidents among school-age children could be prevented. The extension to other parts of the nation of programs such as the federally subsidized Massachusetts Statewide Childhood Injury Prevention Program (SCIPP), which is designed to identify potential hazards to children and promote effective preventive measures, could help to reduce the incidence and severity of childhood accidents.

Long Term Cancer Survival Among Women

The appreciable improvement in survival among cancer patients in recent years has been attributed to earlier detection and better treatment of some forms of cancer. In general, female cancer patients have experienced more favorable relative survival rates than males for most of the major sites of cancer.

The survival rate (the proportion of patients alive a specified period of years following initial diagnosis or treatment) is a measure used to gauge the effectiveness of cancer therapy. Five-year survival rates have been used in many studies. From follow-up information made available by the National Cancer Institute, the Statistical Bureau of the Metropolitan Life Insurance Company has assembled survival data for longer periods for various cancer sites among white cancer patients. This article presents the findings for white females whose cancers were diagnosed and treated during the years 1950-73, with follow-up through 1975.*

The table on page 14 presents the survival experience in terms of relative survival rates among female cancer patients at the end of 10, 15 and 20 years following diagnosis. The relative survival rate is the ratio of the observed survival rate to the expected rate for a group of people in the general population similar to the patient group with respect to age, sex, and calendar period of observation. These rates provide a basis for comparison of the additional mortality associated with specific forms of cancer in patient groups.

Relative survival rates are shown for nine primary cancer sites—for localized growths and for all stages of cancer combined—by decennial age groups (45 and over) as well as for all ages combined at the time of diagnosis. No rate is shown for any age group with less than 400 diagnosed cases or with fewer than five deaths.

Cancer of the breast accounts for more than a quarter of all malignant neoplasms and is responsible for about a fifth of all cancer deaths among women. Although there has been little change in the mortality rate from cancer of this site in the past 50 years, survival rates have been relatively high. Among women at all ages combined and for all stages of the disease, half survived 10 years, and two fifths survived 20 years. When the disease was diagnosed in the localized stage - confined to the site of origin at initiation of therapy—relative survival rates were appreciably higher: three out of four women survived for 10 years and three out of five survived for 20 years. However, less than half of all breast cancers were diagnosed in the localized stage. Survival rates did not differ significantly by age.

The mortality from uterine cancer has declined by more than 70 percent in the past 40 years, but cancer of this site is still a leading cause of death among women. The number of new cases is estimated at 54,000 in 1981, with about 10,000 deaths during the year. The decline in the death rate has been attributed largely to increased use of the Pap test and regular checkups. The Pap test is highly effective in the early detection of cancer of the uterine cervix (neck of the uterus) but is only about 40 percent effective in detecting cancer of the uterine corpus (body of the uterus).

Among women with cancer of the uterine cervix (all stages combined) diagnosed and treated during the years 1950-73, 52 percent survived 10 years after diagnosis, 49 percent for 15 years, and 47 percent for 20 years. When cancer was diagnosed and treated in the localized stage, survival rates were markedly higher—about seven out of 10 women were alive at the end of 20 years. Survival rates were higher at ages 45-54 (72 percent at the end of 10 years and 69 percent after 15 years) than at ages 75 and over (60 percent after 10 years and 63 percent after 15 years).

Relative survival rates were higher among women with cancer of the uterine corpus than

*Similar data for men appeared in the Jan-Mar 1981 issue of the *Statistical Bulletin*.

CANCER SURVIVAL AMONG WOMEN BY AGE

Cancer Diagnosed Among White Females, 1950-73

ALL STAGES OF DISEASE

Age at Diagnosis	Stomach			Colon			Rectum			Lung and Bronchus		
	Relative Survival Rate*											
	10 Years	15 Years	20 Years	10 Years	5 Years	20 Years	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years
All Ages	11%	11%	†	41%	39%	38%	37%	35%	31%	9%	7%	†
45-54	†	†	†	42	40	38	40	38	†	†	†	†
55-64	†	†	†	43	41	39	42	38	36	8	†	†
65-74	11	†	†	40	38	38	35	32	26	†	†	†
75 and over	13	19	†	43	42	†	31	†	†	†	†	†

Age at Diagnosis	Breast			Uterine Cervix			Uterine Corpus			Ovary			Bladder		
	Relative Survival Rate*														
	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years
All Ages	50%	45%	40%	52%	49%	47%	70%	68%	62%	28%	26%	24%	50%	46%	†
45-54	53	48	43	53	49	47	82	80	76	30	27	†	†	†	†
55-64	48	42	37	47	42	40	71	68	61	23	20	17	55	48	†
65-74	47	41	37	43	37	32	59	54	42	18	16	†	45	40	†
75 and over	50	55	65	33	32	†	56	†	†	19	†	†	40	†	†

LOCALIZED DISEASE

Age at Diagnosis	Stomach			Colon			Rectum			Lung and Bronchus		
	Relative Survival Rate*											
	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years
All Ages	34%	†	†	66%	63%	63%	61%	57%	52%	37%	†	†
45-54	‡	‡	‡	68	62	†	†	†	†	‡	‡	‡
55-64	‡	‡	‡	70	67	63	67	62	†	†	†	†
65-74	32	†	†	63	61	64	57	52	43	†	†	†
75 and over	†	†	†	70	69	†	57	†	†	‡	‡	‡

Age at Diagnosis	Breast			Uterine Cervix			Uterine Corpus			Ovary			Bladder		
	Relative Survival Rate*														
	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years	10 Years	15 Years	20 Years
All Ages	74%	69%	63%	72%	69%	67%	81%	79%	72%	67%	64%	60%	63%	59%	†
45-54	77	70	66	72	69	†	90	87	83	†	63	†	†	†	†
55-64	73	66	59	66	61	60	81	78	68	60	57	47	69	61	†
65-74	68	63	60	64	60	46	72	66	56	64	57	†	56	51	†
75 and over	78	92	75	60	63	†	78	†	†	‡	‡	‡	55	†	†

*Relative survival rate is the observed proportion surviving among the cancer patients under consideration divided by the proportion expected to survive in the general population with the same age distribution, based on population mortality rates during the period under observation.

†Fewer than five deaths from cancer.

‡Fewer than 400 cases diagnosed.

Source of basic data: Unpublished data from End Results Evaluation Program, National Cancer Institute, Bethesda, Maryland.

for those with cervical cancer. Among women with cancer of the uterine corpus (at all ages and for all stages of the disease), 70 percent survived 10 years after diagnosis, 68 percent for 15 years, and 62 percent for 20 years. When cancer of this site was diagnosed in the localized stage, survival rates rose to 81 percent at the end of 10 years, 79 percent after 15 years, and 72 percent after 20 years. Nine out of ten women aged 45-54 with localized cancer of the uterine corpus survived 10 years. However, 10-year survival rates were somewhat lower at ages 55-74. About three out of four cases were identified and treated while the disease was in the localized stage.

Cancer of the ovary is responsible for about 11,000 deaths each year. Death rates have increased slightly over the past 25 years. The relative survival rates among women of all ages and at all stages of the disease were 28 percent at the end of 10 years, declining to 26 percent at the end of 15 years, and to 24 percent after 20 years. Survival rates increased significantly when the cancer was diagnosed and treated in the localized stage—67 percent survived for 10 years, 64 percent for 15 years, and 60 percent for 20 years. About 40 percent of the ovarian cancers were detected in the localized stage.

Cancer of the colon and rectum accounts for about 15 percent of all cancer deaths among women, with an estimated 25,000 deaths from colonic cancer and 4,000 from rectal cancer each year. Cancer of the colon occurs more often and mortality is higher among women than among men but the reverse is true for cancer of the rectum. Relative survival rates for women with cancer of the colon were also higher than the rates for men. Among women with cancer of the colon 41 percent were alive 10 years after diagnosis, 39 percent after 15 years, and 38 percent after 20 years. These rates were about the same for specific age groups. Relative survival rates were markedly higher for women with localized cancer of the colon; 66 percent survived for 10 years, and 63 percent for 15 and 20 years. About two out of five cases of cancer of the colon were detected in the localized stage.

Relative survival rates among women with cancer of the rectum were slightly lower than the rates among women with cancer of the colon. The relative survival rates among women with cancer of the rectum were 37 percent at the end of 10 years, 35 percent after 15 years, and 31 percent after 20 years. Survival rates were considerably higher among women with localized cancer of the rectum, with 61 percent surviving for 10 years, 57 percent for 15 years, and 52 percent for 20 years. About 46 percent of the cases were diagnosed in the localized stage.

Cancer of the lung currently accounts for about 28,000 deaths each year among women. The death rate from lung cancer among women is rising, and the American Cancer Society predicts that by the mid-1980s cancer of the lung may well surpass breast cancer as the leading cause of cancer death among women. During the 1950-73 period, relative survival rates from cancer of the lung and bronchus among women were 9 percent at the end of 10 years and 7 percent after 15 years. When cancer of the lung was diagnosed and treated in the localized stage, the survival rate increased to 37 percent at the end of 10 years. However, only 17 percent of the lung cancer cases were diagnosed in the localized stage.

The incidence of cancer of the stomach has been declining for several decades. Mortality has also decreased but cancer of this site is still responsible for about 5,500 deaths among women each year. Among women with cancer of the stomach (at all ages combined and for all stages of the disease), 11 percent survived for 10 years and for 15 years. When the disease was diagnosed in the localized stage, the survival rate rose to 34 percent at the end of 10 years. However, only a fifth of such cases were detected in the localized stage.

There are about 3,300 deaths annually from cancer of the bladder among women. In the 1950-73 period, about half of all women with cancer of the bladder survived 10 years after diagnosis while 46 percent survived 15 years. Relative survival rates were higher for women whose cancer was diagnosed in the localized stage—63 percent at the end of 10 years and 59 percent after 15 years. Among women in the 55-64 age group, 69 percent survived 10 years and 61 percent for 15 years. Survival rates were somewhat lower among women at ages 65-74 (56 percent) and at ages 75 and over (55 percent) at the end of 10 years.

Deaths of Active* Employees-Metropolitan Life Insurance Company 1977-79

*Actively at work or on temporary disability. Personnel in the Pacific Coast States and Canada are not included.

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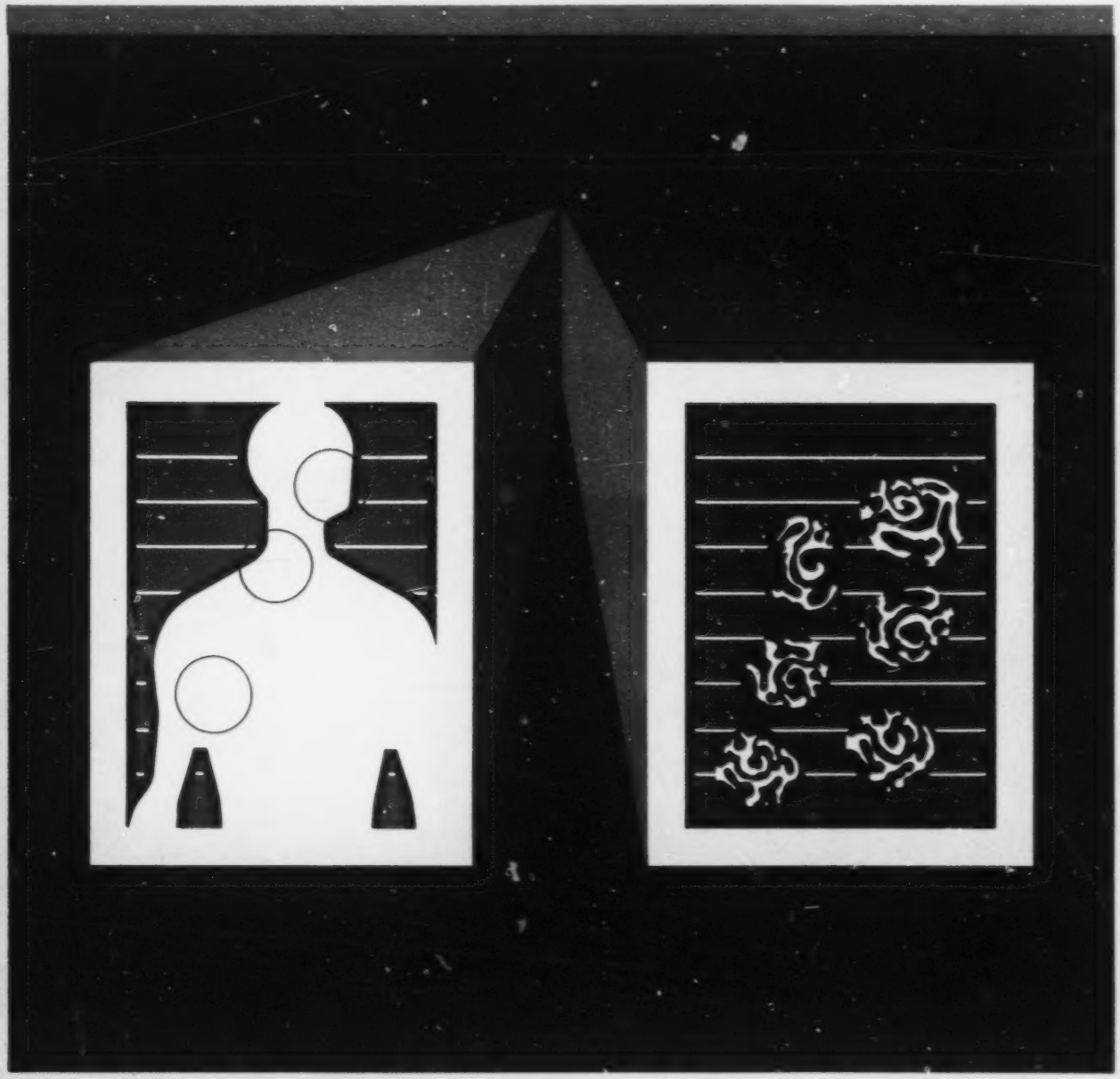


Hodgkin's Disease and Leukemia
Cycling Accidents in the United States
Passenger Fatalities in Flying on Scheduled Airlines
Mortality in the United States, Canada, and Western Europe
Frequency and Duration of Long-Term Disability Among Metropolitan Employees

MORTALITY FROM HODGKIN'S DISEASE AND LEUKEMIA

Metropolitan Life Insurance Company Standard Ordinary Policyholders, 1967-69 and 1977-79 and United States General Population, 1967-68 and 1977-78

Metropolitan Standard Ordinary Policyholders

Age	HODGKIN'S DISEASE						LEUKEMIA					
	Death Rate per 100,000						Death Rate per 100,000					
	1967-69		1977-79		Percent Decrease		1967-69		1977-79		Percent Decrease‡	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All Ages*	2.0	1.4	1.2	0.7	40	50	7.0	4.9	5.7	4.6	19	6
Under 10	†	†	†	†	†	†	4.6	4.9	1.3	2.0	72	59
10-19	.3	†	†	†	†	†	1.9	1.6	2.3	1.5	+21	6
20-29	2.2	1.1	.9	.9	59	18	1.8	1.4	1.6	1.5	11	+7
30-39	2.2	1.5	1.7	.9	23	40	2.4	1.9	2.2	2.0	8	+5
40-49	2.6	1.4	1.5	.7	42	50	4.4	2.9	3.5	3.1	20	+7
50-59	3.8	2.3	1.8	.7	53	70	9.3	6.3	8.1	5.6	13	+5
60-69	5.0	3.4	2.6	†	48	†	24.1	13.6	21.3	12.8	12	6
70 and over	5.0	7.7	4.5	†	10	†	55.4	36.7	46.7	40.0	16	+9

United States General Population

Age	Death Rate per 100,000						Death Rate per 100,000					
	1967-68		1977-78		Percent Decrease		1967-68		1977-78		Percent Decrease‡	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All Ages*	2.1	1.3	1.2	0.7	43	46	7.5	4.8	6.9	4.3	8	10
Under 10	.1	†	†	†	†	†	3.9	3.2	2.3	1.8	41	44
10-19	.6	.4	.2	.2	67	50	2.7	1.8	2.2	1.4	19	22
20-29	2.1	1.3	1.1	.7	48	46	2.2	1.5	2.1	1.3	5	13
30-39	2.5	1.5	1.4	.7	44	53	2.9	2.2	2.4	1.9	17	14
40-49	2.7	1.4	1.4	.7	48	50	4.8	3.7	4.3	3.2	10	14
50-59	3.7	2.0	1.9	1.0	49	50	10.0	6.7	9.1	5.9	9	12
60-69	5.0	3.0	2.7	1.6	46	47	24.6	14.0	22.1	12.5	10	11
70 and over	6.1	4.5	4.4	3.2	28	29	59.3	34.1	64.6	35.7	+9	+5

*Adjusted on basis of age distribution of the United States total population, 1940.
†Fewer than 15 deaths; percent change not computed.
‡Plus sign (+) denotes increase.

Source of basic data: Reports of Division of Vital Statistics, National Center for Health Statistics.

Hodgkin's Disease and Leukemia

Despite impressive progress in the treatment of Hodgkin's disease and leukemia during the past decade, each year about 18,000 die from these diseases. Among children under 15 years of age, Hodgkin's disease and leukemia account for about half of all cancer deaths. The American Cancer Society estimates that in 1982 there will be approximately 7,000 new cases of Hodgkin's disease and about 1,600 deaths, while 23,500 new cases and about 15,900 deaths from leukemia can be expected.

The table on page 2 presents recent mortality rates from Hodgkin's disease and from leukemia among Standard Ordinary policyholders of the Metropolitan Life Insurance Company and for the United States general population. Death rates are shown in 10-year age groups, as well as at all ages combined, in 1967-69 and 1977-79 for insured lives and in 1967-68 and 1977-78 for the general population, with the percent change computed for the 10-year period. The death rates at all ages have been standardized to allow for differences in age distribution.

Hodgkin's disease (cancer of the lymphatic system) is rare among children under 5 years of age but the incidence increases rapidly, reaching a peak between 15 and 34 years of age and a second peak after 50 years of age. Among males at all ages combined in the general population, the mortality from Hodgkin's disease decreased by 43 percent, from 2.1 to 1.2 per 100,000, during the 10-year period from 1967-68 to 1977-78. There was a 46-percent decline in mortality among women, from 1.3 to 0.7 per 100,000, during the same period. The death rates for both men and women decreased for every age group shown, with the largest decline (67 percent) occurring among males aged 10-19. With the exception of the experience at ages 70 and over, there was an overall decline of about 50 percent in the mortality from Hodgkin's disease for both men and women. At ages 70 and over, the mortality decreased by about 30 percent.

Among insured lives, the decline in mortality from Hodgkin's disease was of about the same magnitude as that for the general population. In the period from 1967-69 to 1977-79, the age-adjusted death rate from Hodgkin's disease among men decreased by 40 percent, from 2.0 to 1.2 per 100,000. Among insured women, the rate fell by 50 percent, from 1.4 to 0.7 per 100,000. During the 10-year period, mortality from Hodgkin's disease among insured lives declined in every age group shown.

Reports of the National Cancer Institute indicate that Hodgkin's disease patients have had the best survival of lymphoma patients.[1] The five-year relative survival rate* has increased from 30 percent among white patients diagnosed in 1950-54 to 54 percent for those diagnosed in 1965-69. Female patients had a slight edge in survival rates over male patients. Radiotherapy alone was used in the treatment of more than 40 percent of patients with Hodgkin's disease diagnosed in 1970-73, while an additional 17 percent received chemotherapy and/or hormone treatment. In recent years, more patients with Hodgkin's disease have been treated with some form of definitive therapy. While 14 percent of the cases diagnosed in 1950-54 did not receive treatment, only 6 percent of the cases in 1970-73 were in this category.

Leukemia (cancer of the blood-forming tissues) is the leading cause of cancer death among males under 35 years of age and among females under 25. Among women in the age group 25-34, leukemia as a cause of death is ranked second only to breast cancer. In 1978, the latest year for which mortality data are available, leukemia accounted for more than 15,000 deaths; about 1,000 of these deaths were among children under 15 years of age.

As shown in the table, mortality rates from leukemia in the general population were lower at ages under 40 than at the older ages. At ages 40 and over, the death rates increased steadily with advancing age, reaching a peak at ages 70 and over. Among men at all ages combined, the death rate from leukemia declined by 8 percent, from 7.5 per 100,000 in 1967-68 to 6.9 per 100,000

*The relative survival rate is the ratio of the observed survival rate in a group of patients to the survival rate expected in a group in the general population similar to the patients with respect to age, sex, and calendar period of observation.

in 1977-1978. The decrease in mortality among women was somewhat greater, with the death rate falling from 4.8 to 4.3 per 100,000, or by 10 percent. A decline in mortality was noted for every age group except the oldest; at ages 70 and over, mortality from leukemia rose by 9 percent among men and by 5 percent among women. The largest decrease in mortality was recorded among children under 10 years of age (41 percent for boys and 44 percent for girls), followed by a decline of 19 percent for males and 22 percent for females at ages 10-19. Between ages 20 and 70, the decrease in mortality ranged from a low of 5 percent at ages 20-29 to a high of 17 percent at 30-39 years among men. Among women, the decline in mortality varied from 11 percent at ages 60-69 to 14 percent at ages 30-49.

Among insured lives, mortality from leukemia declined by 19 percent among males and by 6 percent among females. The largest decrease occurred among children under 10 years of age—72 percent for boys and 59 percent for girls. Among insured males, mortality declined for all age groups except 10-19; at these ages, death rates increased by 21 percent during the 10-year period. Among insured females, mortality rose slightly at ages 20-59 and at ages 70 and over, but declined by 6 percent at ages 10-19 and 60-69.

About two out of every three leukemia cases are treated with chemotherapy, although hormone therapy (or a combination of both) may be used. The chances of survival depend to a great extent on the type of the disease. The survival experience among patients with acute leukemia was much less favorable than that for patients with chronic leukemia. According to follow-up studies[1] of the National Cancer Institute, the relative survival rate at the end of one year among white patients with all types of acute leukemia was 10 percent for cases diagnosed in 1950-54 and 38 percent for those diagnosed in 1970-73. The corresponding survival rates among those with chronic leukemia were 54 percent for cases diagnosed in the earlier period and 67 percent for those of the later period. The five-year survival rate in all types of acute leukemia was 3 percent for cases diagnosed in 1965-69, compared with 32 percent among those with chronic leukemia.

While the greatest gains in survival were registered at ages under 15 among patients with the acute types of leukemia, the three-year survival rate for all types of leukemia combined among this age group also rose sharply, from 3 percent in 1950-59 to 29 percent in 1967-73. The increase in survival rates for other age groups was much smaller than that recorded among children.

[1]Cancer Patient Survival, Report No. 5, National Cancer Institute, Bethesda, Maryland, 1976.

Cycling Accidents in the United States

With the tremendous increase in the popularity of pedal cycling* in recent years, nearly half the people in the United States now engage in this activity. The number of pedal cycles (mostly bicycles) has increased by about 50 percent in the past 25 years—from 42.3 million in 1968 to an estimated 62-65 million in 1981. By 1979, bicycles were outselling passenger cars—10.8 million bicycles compared with 10.7 million cars. Currently, there is one bicycle for every two registered passenger cars.

Several factors have contributed to the increased participation in bicycle riding. The health and recreational benefits are substantial, and in urban areas cycling offers mobility comparable to motor travel. The advantages of this inexpensive, quiet, and nonpolluting form of transportation are offset, however, by a lack of adequate facilities (bikeways, secure parking areas, etc.), inconvenience during bad weather, and—of even greater concern—an increase in the number of accidents.

According to reports of the United States Consumer Product Safety Commission (CPSC), the number of product-related injuries involving bi-

*Use of a vehicle propelled by human power and operated solely by pedals

TABLE 1—DEATHS AMONG RIDERS OF PEDAL CYCLES

By Type of Accident,* United States, 1960-1978

Year	Total	Collision with Motor Vehicle	Not Involving Motor Vehicle	Death Rate Per Million Population
1960	502	451	51	2.8
1965	706	628	78	3.6
1968	744	683	61	3.7
1969	771	703	68	3.8
1970	743	663	80	3.7
1971	806	728	78	3.9
1972	956	864	92	4.6
1973	991	897	94	4.7
1974	989	889	100	4.7
1975	891	801	90	4.2
1976	822	736	86	3.8
1977	846	778	68	3.9
1978	824	756	68	3.8

*Excluding deaths in railroad-crossing collisions with trains; data not available.

Source of basic data: Reports of the Division of Vital Statistics, National Center for Health Statistics.

TABLE 2—DEATHS AMONG RIDERS OF PEDAL CYCLES

By Age, United States, 1968 and 1978

Age Group	Number of Deaths*		Death Rate Per Million Population	
	1968	1978	1968	1978
All Ages	744	824	3.7	3.8
Under 1	—	—	—	—
1-4	7	14	.5	1.1
5-9	224	164	10.7	9.7
10-14	315	257	15.6	13.8
15-19	78	147	4.3	7.0
20-24	10	55	.7	2.7
25-34	19	68	.8	2.0
35-44	11	24	.5	1.0
45-54	26	18	1.1	.8
55-64	20	23	1.1	1.1
65-74	23	29	2.0	1.9
75 and over	11	25	1.5	2.7

*Excluding deaths in railroad-crossing collisions with trains; data not available.

Source of basic data: Reports of the Division of Vital Statistics, National Center for Health Statistics.

cycles has been rising each year. Bicycles were associated with more than 500,000 hospital-treated injuries in 1980 (compared with about 460,000 football and 440,000 baseball injuries). Estimates of the average number of cycling injuries requiring medical attention or causing one or more days of restricted activity have ranged as high as one million annually.

As shown in Table 1, the death toll among cyclists rose from 502 in 1960 to a high of 991 in 1973, but decreased thereafter. In 1978, the latest year for which official figures are available, there were 824 deaths, resulting in an accident death rate of 3.8 per million population among riders of pedal cycles. Collisions with motor vehicles were responsible for more than 90 percent of all accident fatalities among cyclists during 1978, underscoring the increasing risk to the cyclist in today's heavy traffic. Nonfatal cycling injuries, on the other hand, were more numerous in accidents that did not involve motor vehicles.

Changes in bicycle use are reflected in Table 2, which indicates that between 1968 and 1978 the proportion of cycling deaths among children decreased while fatalities among adults increased. Children under 15 years of age accounted for about three fourths of all cycling deaths in 1968 but for only about one half in 1978. During the same period, the proportion of fatalities among cyclists between the ages of 15 and 24 rose from one eighth to one fourth and fatalities among adults 25 years of age and older from one seventh to almost one fourth. As in 1968, the peak death rate in 1978 (13.8 per million population) occurred at ages 10-14 and the second highest rate (9.7) at ages 5-9. At ages 15-19, however, the 1978 death rate was nearly double the 1968 rate. At ages 20-44 and ages 75 and over, death rates from cycling accidents were substantially higher than the corresponding rates in 1968.

For a number of years the National Safety Council, state and local governments, and many other public and private organizations have been promoting safety education for bicycle riders, and for young cyclists in particular. The CPSC has issued safety standards governing the design of bicycles. Many states have enacted laws requiring that a bicycle be equipped with a headlight, tail light, and reflectors, and that the bicyclist observe traffic regulations. However, enforcement of such laws is difficult. Epidemiological studies investigate the nature of bicycle accidents, the characteristics of the population in which they occur, riding behavior, and type of riding errors. The findings of such studies are useful in designing bicycle safety campaigns and in formulating certain laws on bicycle use.

One study,[1] supported by a grant from the Bicycle Manufacturers Association of America, involved an extensive analysis of two sets of data collected by CPSC—a national sample of reports from hospital emergency rooms that record visits due to product-related accidents and a group of 646 in-depth investigations of bicycle-associated accidents. One conclusion of the study was that the voluntary manufacturing standard suggested by the Bicycle Manufacturers Association had resulted in a substantial reduction in frame failures associated with bicycle accidents. The study also indicated that there had been a marked increase in the use of bicycles by older individuals.

Another study[2] of 192 persons injured in bicycle accidents, who were treated in the emergency room of a large hospital in Minneapolis during a one-year period, indicated that the most common soft-tissue injuries involved the head and face and the most frequent skeletal injuries were those of the wrist and hand. Other significant factors associated with the accidents included mechanical or structural defects in the bicycle, collisions with motor vehicles, riding on a surface covered by loose sand or gravel, and errors in turning or going downhill. The findings suggest that the establishment by the bicycle industry of minimum standards in bicycle design, strength, and performance would prevent many accidents.

The increasingly large mix of bicycle-motor vehicle traffic points up the necessity for the development of more bikepaths and bikeways to separate pedal cycles from motor vehicles. It is also imperative that cyclists obey all traffic regulations. Motorists, too, have some responsibility. While the cyclist must practice correct traffic behavior, the automobile, bus, or truck driver should be on the alert for the smaller vehicles and be ready to pull away slightly or reduce speed when passing them.

[1] Flora JD, Abbott RD: National trends in bicycle accidents. *Journal of Safety Research* 11:20-27, Spring 1979.
[2] Davis MW, Litman T, Crenshaw RW, et al: Bicycle injuries. *The Physician and Sportsmedicine* 8:86-96, May 1980.

Passenger Fatalities in Flying on Scheduled Airlines

Travel on United States, Canadian, and Western European airlines increased during the 1976-80 period. Revenue passenger miles flown rose by 40 percent, while the number of revenue passengers carried increased by about 30 percent. Passenger load factors (percent of capacity utilized) rose from 55 percent in 1976 to 59 percent in 1980 on United States airlines and from 60 to 67 percent on Canadian airlines, but decreased from 62 to 60 percent on airlines in Western Europe. The growth in passenger flying on United States carriers was nearly double that during the 1970-75 period,* while the growth rates on Canadian and Western European airlines were about two thirds that experienced in the earlier period.

Between 1976 and 1980, the number of revenue passenger miles flown by United States certificated† airlines on domestic flights increased from about 145 billion miles to 200 billion miles, or by 38 percent. In the same period, aircraft departures on domestic flights increased by 12 percent, from 4.58 million to 5.12 million. The number of revenue passengers carried also increased from 206 to 273 million, or by 33 percent. On international flights of United States airlines the number of revenue passenger miles flown increased from 34 billion in 1976 to 54 billion in 1980, while aircraft departures were reduced from about 235,000 to 223,000. The number of revenue passengers carried on international flights rose from 17 to 24 million. During this period, there was a marked increase in the number of airlines in the United States, from 33 carriers in 1976 to 60 in 1980.

In Canada, the number of revenue passenger miles flown on domestic flights increased by 41 percent, from 8.73 billion miles in 1976 to 12.27 billion miles in 1980. During the same period, the number of aircraft departures on domestic flights increased from 310,000 to 314,000, or by only 1 percent. The number of revenue passengers carried increased from 13 to 17 million. On international flights of Canadian airlines, the number of revenue passenger miles flown rose from 7.40 to 10.07 billion miles in the five-year period, while aircraft departures showed only a 4 percent increase from 57,000 to 59,000. The number of passengers carried on such international flights grew from 4.1 million to 5.4 million, or by 31 percent.

On the scheduled airlines of Western Europe, the number of revenue passenger miles flown on domestic and international flights combined increased from 81 billion miles in 1976 to 111 billion miles in 1980, or by 37 percent. Aircraft departures also increased during this period—from about 1.4 million in 1976 to 1.5 million in 1980—or by 6 percent. The number of passengers carried rose from 78 million to 97 million for an increase of 24 percent.

Increases in air traffic during the 1976-80 period should be used with caution in predicting future growth. The widespread economic recession and high fuel and wage costs have had an adverse effect on world air transport in more recent years. Many airlines experienced lower growth rates than had occurred in the past fifty years, and a few airlines showed a decrease.

*See February 1977 issue of the *Statistical Bulletin*.

†A certificated airline is an air carrier holding a certificate of public convenience and necessity issued by the Civil Aeronautics Board to conduct scheduled services over specified routes.

TABLE 1—PASSENGER FATALITY RATES ON UNITED STATES AIRLINES, 1976-1980

All Scheduled Airlines

Year	Fatal Accidents	Fatal Accidents Per Thousand Revenue Aircraft Departures	Passenger Fatalities: Number of Deaths	Passenger Fatalities: Per Million Revenue Passenger Miles	Passenger Fatalities: Per Million Revenue Passengers Carried	Passenger Fatalities: Per Thousand Revenue Aircraft Departsres
Domestic Flights						
1976.....	1	.0002	1	—	.0049	.0002
1977.....	1	.0002	60	.0004	.2703	.0128
1978.....	3	.0006	13	.0001	.0512	.0027
1979.....	2	.0004	259	.0012	.8840	.0504
1980.....	1	.0002	11	.0001	.0403	.0021
1976-80.....	8	.0003	344	.0004	.2756	.0141
International Flights						
1976.....	1	.0043	35	.0010	2.0588	.1489
1977.....	—	—	—	—	—	—
1978.....	—	—	—	—	—	—
1979.....	1	.0042	59	.0011	2.4583	.2480
1980.....	—	—	—	—	—	—
1976-80.....	2	.0018	94	.0004	.9038	.0827
All Flights						
1976.....	2	.0004	36	.0002	.1263	.0075
1977.....	1	.0002	60	.0003	.2500	.0122
1978.....	3	.0006	13	.0001	.0473	.0026
1979.....	3	.0006	318	.0012	1.0032	.0591
1980.....	1	.0002	11	—	.0297	.0021
1976-80.....	10	.0003	438	.0004	.2582	.0142

Source of basic data: Reports of Civil Aeronautics Board and National Transportation Safety Board.

New definitions for categorizing United States certificated airlines (formulated by the Civil Aeronautics Board) became effective in January 1981. Designated as major carriers‡ were airlines with annual operating revenues of more than one billion dollars; these carriers were formerly known as the trunk lines. The other carrier groups (with revenues of one billion dollars or less) are now known as the national, large regional, and medium regional airlines; these were formerly called the regional, local service, Hawaiian, Alaskan, other system carriers, and other carriers.

Table 1 on page 8 presents the record of accidents and fatalities on United States certificated airlines in 1976-1980. In terms of number of passenger fatalities and fatality rates, the experience on both domestic and international flights in 1976-80 showed improvement over the record for 1970-75. The passenger fatality rate of .0004 per million revenue passenger miles on domestic flights in 1976-80 was less than half the rate in the earlier period. On international flights the improvement was even greater; the fatality rate among passengers decreased from .0013 to .0004 per million revenue passenger miles.

There were 271 passenger fatalities in four accidents on domestic flights of the major carriers in 1976-80. Another four accidents occurred on other carriers, with 73 passenger fatalities. On international flights, the major carriers accounted for all 94 passenger fatalities. Most international flights are undertaken by the major carriers, al-

‡American, Braniff, Continental, Delta, Eastern, National (merged with Pan American in 1980), Northwest, Pan American, Trans World, United, and Western.

TABLE 2—PASSENGER FATALITY RATES ON CANADIAN AND SELECTED WESTERN EUROPEAN AIRLINES, 1976-1980

Scheduled Domestic and International Flights

Year	Fatal Accidents	Fatal Accidents Per Thousand Revenue Aircraft Departures	Passenger Fatalities: Number of Deaths	Passenger Fatalities: Per Million Revenue Passenger Miles	Passenger Fatalities: Per Million Revenue Passengers Carried	Passenger Fatalities: Per Thousand Revenue Aircraft Departures
Canadian Airlines*						
1976	—	—	—	—	—	—
1977	—	—	—	—	—	—
1978	2	.0057	41	.0023	2.2185	.1175
1979	1	.0027	14	.0007	.6549	.0378
1980	—	—	—	—	—	—
1976-80	3	.0017	55	.0006	.5500	.0303
Western European Airlines†						
1976	2	.0014	100	.0012	1.2755	.0718
1977	1	.0007	123	.0014	1.4784	.0886
1978	1	.0007	103	.0010	1.1196	.0696
1979	1	.0007	14	.0001	.1429	.0094
1980	1	.0007	2	—	.0206	.0014
1976-80	6	.0008	342	.0007	.7626	.0473

*Air Canada, CP Air, Eastern Provincial Airways, Nordair Ltd., Pacific Western Airlines, Quebecair.

†IATA member airlines: Aer Lingus/Aerlinte, Air France, Air Malta, Alitalia-Linee Aeree Italiane, Austrian Airlines, British Airways, British Caledonian, Finnair, Iberia, Icelandair, KLM, Lufthansa, Olympic Airways, Sabena, Scandinavian Airlines System, Swissair, Tap, Union De Transports Ariens.

Source of basic data: Reports of Minister of Supply and Services Canada, International Air Transport Association, and *Flight International*.

though some of the other carriers provide service to nearby places, such as Canada and Mexico.

During 1980 the major carriers accounted for 72 percent of all passengers carried but for only 56 percent of all aircraft departures. The use of wide-body aircraft, with their much greater capacity, has enabled the airlines to carry more passengers with fewer aircraft departures. The major carriers generally use more of the larger planes than do other carriers.

Canadian and Western European airlines also recorded an improvement in passenger fatality experience. The fatality rates on these airlines are shown in Table 2, which presents the experience for domestic and international operations combined. With only three fatal accidents in the 1976-80 period, the passenger fatality rate of .0006 per million revenue passenger miles on Canadian airlines was less than half the rate in 1970-75. All Canadian accidents occurred in Canada. The data shown relate to Canadian airlines which account for approximately 80 percent of the total operating revenues of the Canadian air transport industry.

On the airlines of Western Europe (members of the International Air Transport Association), the passenger fatality rate was reduced from .0014 per million revenue passenger miles in 1970-75 to .0007 in 1976-80. In this period, the passenger fatalities per thousand revenue aircraft departures decreased from .0707 in 1970-75 to .0473 in 1976-80.

Mortality in the United States, Canada, and Western Europe

There was a significant decline in mortality from all causes among men and women in the United States, Canada, and most countries of Western Europe during the decade from 1966-67 to 1976-77. This decrease in death rates can be attributed in part to the pronounced decline in mortality from the cardiovascular diseases during these years.*

There were only a few exceptions to the generally downward trend of mortality. In Northern Ireland, death rates among men in every age group past 25 increased during this period. In Denmark the mortality among men aged 25-44 increased slightly and at ages 45-64 remained unchanged. Death rates increased among men at ages 45-64 in Norway and Sweden, and among men at ages 65 and over in the Netherlands and Belgium. The only increase in death rates among women occurred at ages 45-64 in Northern Ireland and Scotland.

Mortality rates in the United States are often compared with the rates in individual countries of Western Europe. Because of its size, population, diversity, and degree of industrialization, the United States is more reasonably regarded as a continent rather than as a homogeneous national entity (such as Denmark, Norway, Sweden, or the Netherlands). It is, therefore, more appropriate to compare death rates for the United States as a whole with the rates for the large block of industrialized countries such as the United Kingdom, Belgium, France, Germany, and Switzerland. These nations as a group more closely resemble the United States in size of population, degree of industrialization, variety of ethnic and cultural strains, and range of socioeconomic conditions.

Tables 1 and 2 present a comparison of death rates from all causes in the United States, Canada, and the principal countries of Western Europe in 1966-67 and 1976-77, the most recent period for which such data are available. Because the age composition of the population varies considerably from one country to another, the death rates have been age adjusted to allow for the effects of such differences in age distribution.

During 1976-77 standardized mortality rates among males ranged from a low of 7.1 per 1,000 in the Scandinavian countries and the Netherlands as a group, to 7.7 in Canada, 8.2 in the United States, and 8.4 in the block of more industrialized Western European countries. Among women the lowest rate—4.2 per 1,000—was recorded in the Scandinavian countries and the Netherlands, followed by 4.3 in Canada, 4.6 in the United States, and 4.9 in the block of more industrialized countries.

Among the individual European countries under review, mortality was highest in Northern Ireland—9.8 per 1,000 among men and 6.0 per 1,000 among women. The lowest mortality among men was recorded in Sweden (6.8 per 1,000), while women in Switzerland had the most favorable experience (4.0 per 1,000).

In 1976-77, death rates among males at ages under 25 varied from a low of 1.0 per 1,000 in the Scandinavian countries and the Netherlands as a group, to 1.4 in the more industrialized Western European countries, 1.5 in Canada, and 1.6 in the United States. At ages 25-44, males in the Scandinavian countries and the Netherlands had the lowest mortality (1.5 per 1,000), while the rate in Canada and the more industrialized countries of Western Europe was 2.0, and that in the United States 2.5.

At ages 45-64, death rates among men were lowest once again in the Scandinavian countries and the Netherlands, followed by the rates in Canada, the Western European countries, and the

*See the Oct-Dec 1980 issue of the *Statistical Bulletin*.

TABLE 1—MORTALITY AMONG MEN IN SELECTED COUNTRIES, 1966-67 AND 1976-77

Average Annual Death Rate* per 1,000 Population

Country	1966-67 All Ages	1966-67 Ages Under 25	1966-67 Ages 25-44	1966-67 Ages 45-64	1966-67 Ages 65 and Over	1976-77 All Ages	1976-77 Ages Under 25	1976-77 Ages 25-44	1976-77 Ages 45-64	1976-77 Ages 65 and Over
United States										
White	9.1	1.8	2.5	14.4	69.0	7.9	1.5	2.2	12.1	61.4
Nonwhite	12.6	3.0	6.4	22.3	72.6	10.6	2.3	5.3	19.5	60.3
Total	9.5	2.0	2.9	15.2	69.2	8.2	1.6	2.5	12.9	61.3
Canada	8.3	1.9	2.2	12.3	64.2	7.7	1.5	2.0	11.5	61.2
Denmark	7.8	1.4	1.6	10.7	66.6	7.4	1.0	1.7	10.7	62.6
Norway	7.1	1.3	1.7	9.6	60.7	7.0	1.1	1.5	9.7	60.3
Sweden	7.0	1.2	1.8	8.9	61.0	6.8	.9	1.8	9.3	59.4
Netherlands	7.3	1.4	1.5	10.4	61.3	7.2	1.0	1.3	10.0	63.7
Weighted Average	7.3	1.3	1.8	9.9	62.0	7.1	1.0	1.5	9.9	61.6
United Kingdom										
England and Wales	8.9	1.5	1.6	12.7	77.0	8.3	1.2	1.4	11.9	73.5
Northern Ireland	9.1	1.7	1.8	13.2	76.8	9.8	1.7	2.2	13.9	82.1
Scotland	10.0	1.6	2.2	15.2	81.9	9.5	1.3	2.0	14.6	80.2
Belgium	9.2	1.8	2.1	13.7	74.8	8.9	1.4	1.9	12.6	76.1
France	8.6	1.5	2.5	13.2	67.2	8.1	1.3	2.4	12.4	63.2
Germany, Federal Republic	9.2	1.9	2.2	12.9	75.3	8.7	1.6	2.2	11.8	72.7
Switzerland	8.0	1.6	1.9	10.8	66.2	7.0	1.2	1.6	9.5	59.8
Weighted Average	8.9	1.7	2.1	13.0	73.3	8.4	1.4	2.0	12.1	70.2

*Adjusted on basis of age distribution of the United States total population, 1940.

Note: Belgium and France—data for 1977 not available; 1976 figures used.

Source of basic data: National Center for Health Statistics, and *World Health Statistics Annual*.

TABLE 2—MORTALITY AMONG WOMEN IN SELECTED COUNTRIES, 1966-67 AND 1976-77

Average Annual Death Rate* per 1,000 Population

Country	1966-67 All Ages	1966-67 Ages Under 25	1966-67 Ages 25-44	1966-67 Ages 45-64	1966-67 Ages 65 and Ove.	1976-77 All Ages	1976-77 Ages Under 25	1976-77 Ages 25-44	1976-77 Ages 45-64	1976-77 Ages 65 and Over
United States										
White	5.3	1.1	1.3	6.8	45.3	4.3	0.8	1.1	6.2	35.5
Nonwhite	8.5	2.0	3.7	14.6	52.1	6.3	1.5	2.4	10.9	40.5
Total	5.7	1.2	1.6	7.6	45.8	4.6	.9	1.3	6.7	36.0
Canada	5.1	1.2	1.2	6.4	43.3	4.3	.8	1.0	5.6	37.5
Denmark	5.4	.9	1.2	6.4	49.4	4.6	.6	1.1	6.3	40.2
Norway	4.7	.8	.8	4.9	45.3	4.1	.6	.7	4.6	38.9
Sweden	4.8	.7	1.0	5.1	45.5	4.1	.6	.9	4.8	38.6
Netherlands	4.8	.8	1.0	5.3	44.7	4.1	.6	.8	4.8	38.4
Weighted Average	4.9	.8	1.0	5.4	45.8	4.2	.6	.9	5.0	38.8
United Kingdom										
England and Wales	5.4	1.0	1.1	6.7	49.0	5.1	.8	1.0	6.5	46.3
Northern Ireland	6.0	1.2	1.3	7.1	54.1	6.0	1.0	1.2	7.7	52.9
Scotland	6.3	1.1	1.4	8.1	55.0	5.8	.8	1.2	8.2	49.9
Belgium	5.8	1.2	1.2	6.8	52.2	5.3	.9	1.1	6.1	48.7
France	5.0	1.0	1.3	6.0	43.6	4.4	.8	1.1	5.1	39.3
Germany, Federal Republic	5.8	1.2	1.3	6.8	62.2	5.1	.9	1.1	6.0	46.4
Switzerland	5.1	1.0	1.0	5.6	47.2	4.0	.7	.8	4.5	37.7
Weighted Average	5.5	1.1	1.2	6.6	48.8	4.9	.8	1.1	5.9	44.4

*Adjusted on basis of age distribution of the United States total population, 1940.

Note: Belgium and France—data for 1977 not available; 1976 figures used.

Source of basic data: National Center for Health Statistics, and *World Health Statistics Annual*.

United States. At ages 65 and over, however, the ranking changed, with the lowest mortality among men recorded in Canada, closely followed by that in the United States—approximately 61 per 1,000 in both countries. In the Scandinavian countries and the Netherlands as a group, the death rate at the older ages was 62 per 1,000, while the rate in the industrialized countries of Western Europe was 70 per 1,000.

A comparison of the death rates by sex indicates that the level of mortality among women is significantly lower than that among men. For all ages combined the age-adjusted death rates among women were three fifths of the rates for men. There is some variation in the sex differential in mortality by age group, with the least difference occurring at ages 45-64 and the greatest at ages 65 and over.

During the 1976-77 period, mortality rates among women at ages under 25 ranged from a low of 0.6 per 1,000 in the Scandinavian countries and the Netherlands as a group, to 0.8 in Canada and the industrialized countries of Western Europe, and to 0.9 in the United States. At ages 25-44 and 45-64 the ranking was the same, with the lowest mortality recorded in the Scandinavian countries and the Netherlands and the highest in the United States. At ages 65 and over, death rates among women in the United States showed a greater decline in the 10-year period than did the rates in the other blocks of countries. As a result, the mortality among women in 1976-77 was lowest in the United States at 36.0 per 1,000, followed by 37.5 in Canada, 38.8 in the Scandinavian countries and the Netherlands, and 44.4 in the Western European countries.

Frequency and Causes of Long-Term Disability Among Metropolitan Employees

About one in every 100 employees of the Metropolitan Life Insurance Company becomes disabled each year for a period lasting longer than six months. Moreover, male sales personnel register a substantially higher disability rate than do other classes of employees. These are the principal findings of a special study of long-term disability among the Company's employees during the four-year period 1977-80.

New cases of disability lasting longer than six months among employees covered under the Company's Group insurance program occurred at an annual rate of 7.7 per 1,000 among men in the Home and Head Offices and 7.3 per 1,000 among female office personnel. An annual disability rate of 9.6 per 1,000 was recorded among female sales personnel. However, the incidence of disability among male sales personnel—at an annual rate of 18.7 per 1,000—was about twice that of any other class of employees. (See table on page 14.)

The frequency of long-term disability rose sharply with advance in age. As shown in the table, the disability rate among male office employees increased from 1.9 per 1,000 at ages under 45, to 7.8 at ages 45-54, 20.7 at ages 55-59, and reached 31.0 per 1,000 at ages 60-64. Over this same age span the disability rate among male sales personnel soared from 6.1 to 57.4 per 1,000. The incidence of disability lasting longer than six months among female office employees increased from 3.5 per 1,000 at ages under 45 to more than 21 per 1,000 at ages 60-64, while the rate among female sales employees rose from 5.4 to nearly 37 per 1,000. For all the age groups shown, the highest rates were recorded by male sales personnel, followed by the rates among female sales personnel.

INCIDENCE OF DISABILITY LASTING LONGER THAN SIX MONTHS

Personnel of the Metropolitan Life Insurance Company,* 1977-80

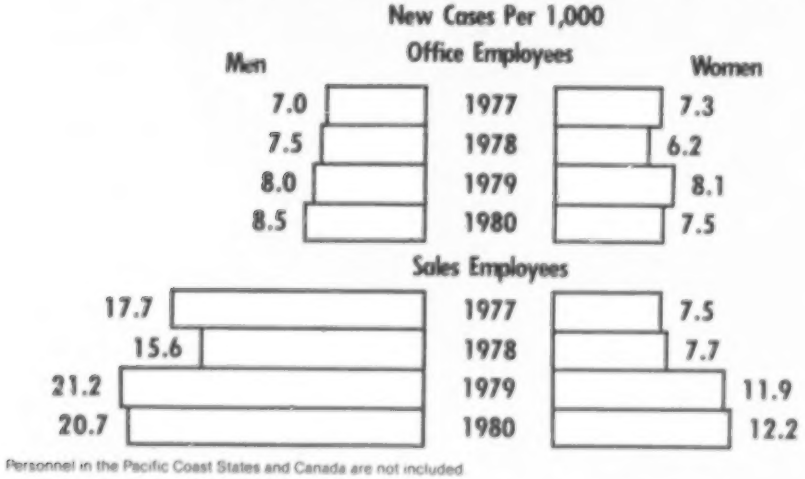
Annual Incidence per 1,000

Cause of Disability	Office Personnel					Sales Personnel				
	Ages 17-64	Ages 17-44	Ages 45-54	Ages 55-59	Ages 60-64	Ages 17-64	Ages 17-44	Ages 45-54	Ages 55-59	Ages 60-64
Male										
All Causes	7.7	1.9	7.8	20.7	31.0	18.7	6.1	18.5	41.4	57.4
Diseases of respiratory system	†	†	†	†	†	.6	†	(.5)	1.4	2.9
Diseases of digestive system	†	†	†	†	†	.7	†	1.0	1.2	(2.0)
Diseases of circulatory system	2.9	(.5)	2.7	7.2	14.6	7.0	.9	6.7	19.1	23.9
Diseases of heart	2.3	†	(2.2)	5.3	12.0	5.8	.8	5.5	15.7	19.8
Diseases of musculoskeletal system	.9	†	(1.5)	(2.9)	†	2.9	1.6	2.6	5.0	8.2
Neoplasms	.8	†	(1.2)	†	(3.2)	1.3	†	1.7	2.8	4.1
Diseases of nervous system	.5	†	†	†	(3.2)	.8	(.2)	.7	1.5	2.9
Psychoneuroses and psychoses	(.5)	†	†	†	†	2.2	1.5	2.3	4.0	3.2
Accidental injuries	.6	(.5)	†	†	†	.7	.7	(.5)	(.8)	(1.5)
Female										
All Causes	7.3	3.5	7.2	13.7	21.3	9.6	5.4	9.1	22.2	36.8
Diseases of respiratory system	†	†	†	†	†	(.5)	†	†	†	†
Diseases of digestive system	.3	†	†	†	†	(.3)	†	†	†	†
Diseases of circulatory system	1.1	†	(.9)	3.2	5.5	2.1	†	(1.4)	7.6	16.0
Diseases of heart	.8	†	†	2.4	4.4	1.5	†	†	6.0	(11.2)
Diseases of musculoskeletal system	1.3	.5	1.8	2.8	3.1	2.1	1.5	(1.9)	(4.8)	†
Neoplasms	1.1	(.4)	1.2	(1.8)	3.9	(.8)	†	†	†	†
Diseases of nervous system	.5	(.4)	†	†	(2.1)	(.4)	†	†	†	†
Psychoneuroses and psychoses	1.0	.9	1.5	†	†	1.5	(.8)	(1.6)	(4.2)	†
Accidental injuries	.7	(.2)	(.7)	(1.2)	2.9	(.4)	†	†	†	†

*Personnel of the Pacific Coast States and Canada are not included.
†Fewer than five cases in this category.
( ) Figures in parentheses are based on five to nine cases.

Incidence of Disability Lasting Longer Than Six Months

Personnel of the Metropolitan Life Insurance Company, 1977 to 1980



Personnel in the Pacific Coast States and Canada are not included

Among men of all ages, diseases of the circulatory system, mainly those involving the heart, were the leading cause of disability lasting longer than six months. Such conditions accounted for more than a third of all long-term disabilities among males in both employee classes—office and sales--and led at ages 45 and over. The proportion of disability cases attributed to circulatory disorders rose with increase in age, reaching more than two fifths at ages 60-64. Diseases of the musculoskeletal system were next in frequency, followed by psychoneuroses and psychoses, and then by neoplasms.

Among women, the causes of disability lasting longer than six months were widely distributed among the various disease categories. Diseases of the musculoskeletal system had the highest incidence among female office employees (18 percent of the total), followed by diseases of the circulatory system (16 percent) and neoplasms (15 percent). Among female sales employees, the order was reversed; circulatory disorders (22 percent) were the most frequent cause of disability, followed by diseases of the musculoskeletal system (21 percent). For both female office employees and female sales personnel, diseases of the circulatory system were the most common cause of disability at ages 55 and over. At the younger ages diseases of the musculoskeletal system and psychoneuroses and psychoses were the most frequent.

Additional information by calendar year is given separately for each employee group in the chart shown above. The incidence of disability lasting longer than six months generally increased over the period of the study. In every instance the rate was higher in 1980 than in 1977. Among office employees the disability rate among males rose from 7.0 per 1,000 in 1977 to 8.5 per 1,000 in 1980, while the incidence among female personnel increased from 7.3 to 7.5 per 1,000 over the same period. Among sales employees, the disability rate increased from 17.7 to 20.7 per 1,000 among men and from 7.5 to 12.2 per 1,000 among women.

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Percent of Deaths From Selected Causes, 1980

Standard Ordinary Policyholders - Metropolitan Life Insurance Company